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Delivered via e-mail

Subject: Request for a Toxic Substances Control Act (TSCA) Risk-Based Approval; Phase 2 Building Decontamination and Panel Removal at the former Riverbank Army Ammunition Plant

Ms. Santos,

On June 24, 2014, the United States Department of the Army (Army) Base Realignment and Closure Division (BRAC) submitted a request for conditional approval to the United States Environmental Protection Agency (USEPA) for a risk-based cleanup of PCB contamination in Galbestos-clad buildings at the former Riverbank Army Ammunition Plant (RBAAP). A meeting to discuss the request was held at USEPA Region IX headquarters on September 11, 2014. Based on discussions during the meeting, the USEPA requested additional details to assist in evaluating the application. Since that time, additional data has been collected to further characterize the RBAAP building interiors. The additional data and evaluation are discussed in the attached Sampling and Analysis Plan (SAP) which includes the Work Sequence and Approach in Appendix B.

USEPA previously granted approval to the Army for the removal and disposal of certain personal property at RBAAP (Phase 1). Following the approval, the Army and Riverbank Local Redevelopment Authority (RLRA) entered into an Environmental Services Cooperative Agreement (ESCA-1) for the RLRA to implement Phase 1 work on behalf of the Army. The Phase 1 work is nearly complete.

This request for approval is intended to address the remaining PCB remediation of the buildings and contents, including building interiors (i.e., structural steel, floors, pits/trenches, and fixed equipment), Galbestos panels, and specific equipment remaining after the Phase 1 work. This additional risk-based cleanup is referred to herein as the Phase 2 work. The Army and RLRA intend to enter into a second ESCA (ESCA-2) to implement the Phase 2 work. The ESCA-2 will require that the Army and RLRA comply with the TSCA and USEPA's approval of risk-based cleanup under TSCA.

PCB contamination that is known to exist in soil outside of the building footprints will be performed separately under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process and is not included as part of this application.

1.0 Background

RBAAP is a 2005 BRAC facility that completed its active mission in May of 2009. The RLRA assumed responsibility for operations and maintenance of the facility on April 1, 2010.

In 2009, the Army discovered that PCB-containing Galbestos panels (commercially known as Robertson Protected Metal, or RPM) were used to construct and enclose buildings at the former RBAAP. In addition to PCBs in the Galbestos panels used as siding and roofing, subsequent testing indicated that PCB contamination in the form of dust and exfoliated particles were present throughout the building interiors on supporting steel structures, interior building roof and wall materials, floors, personal property, consumables and fixed equipment. Sampling conducted by the United States Army Corps of Engineers and Weston Solutions, Inc. confirmed the presence of PCBs.

USEPA granted approval for a risk-based cleanup of PCB-contaminated personal property and some fixed equipment during the RBAAP Phase 1 work. The work funded under Phase 1 was performed in accordance with the USEPA approval letter and amendments dated September 4, 2012, October 29, 2012, December 13, 2012, and July 16, 2013; TSCA; and the Phase 1 SAP. The Phase 1 work is nearly complete.

2.0 Project Summary

In this application, the Army is requesting USEPA approval to remediate PCB-contaminated real property using a risk-based approach under TSCA. This Phase 2 work includes removal and disposal of Galbestos panels and addressing remaining PCB contamination present in building interiors including but not limited to structural steel, interior building roof and wall materials, roofs, floors, fixed equipment, and certain equipment (Phase 2 work). As noted above, the work will be performed by the RLRA on behalf of the Army under a second ESCA.

The enclosed SAP describes the rationale for sample collection, laboratory qualifications, data quality objectives, and sample and data management. Appendix B of the SAP is the proposed Work Sequence and Approach, which provides the remediation approach and steps to be performed during the Phase 2 work.

3.0 Proposed Remedial Approach, Standards, and Sampling Frequency

A summary of the remediation methods, standards, and confirmation sampling frequency proposed in the SAP are listed below:

Interior Building Surface Cleaning - Above 8 feet

- Remediation Methods: Interior building surfaces greater than 8 feet from the floor and higher will be cleaned by vacuuming, hand wiping, or pressure washing to remove loose paint (if present) and/or PCB dust/particles.
- Standard: Above 8 feet is considered low-occupancy areas with a cleanup standard of 25 µg/100 cm^2 based on statistical comparison of the mean total PCB concentration for each building. The mean total PCB concentration will be calculated using ProUCL Version 5.0.00, or more recent.
- Sampling Frequency: Wipe sampling will be performed at a frequency of one sample per 40 feet of building length.

Interior Building Surface Cleaning - Below 8 feet

- Remediation Methods: Except for the floor, interior building surfaces up to and including 8 feet from the floor will be cleaned by pressure washing with water, pressure washing with abrasive media, or mechanical methods (e.g. needle guns) to remove all visible paint.
- Standard: Eight feet and below is considered high-occupancy areas with a cleanup standard of 10µg/100 cm^2 based on statistical comparison of the mean total PCB concentration for each building. The mean total PCB concentration will be calculated using ProUCL Version 5.0.00, or more recent. No visible paint may remain on these surfaces.
- Sampling Frequency: Wipe sampling will be performed at a frequency of one sample per 40 feet of building length.

Floor Surfaces (concrete)

- Remediation Methods: The floor will be remediated by scabbling, grinding or other mechanical means to remove PCB dust/particles.
- Standard: Statistical comparison of the mean total PCB concentration to a cleanup standard of 5 mg/kg using ProUCL Version 5.0.00, or more recent, with no individual result greater than 25 mg/kg.
- Sampling Frequency: Bulk sampling to a depth of no more than one-half inch of the concrete surface will be performed at a frequency of one sample per 40 feet of building length (approximately 2,000 square feet).

Pits and Trenches (concrete)

- Remediation Methods: Pits and trenches will be initially cleaned by vacuuming and/or pressure-washing with water to remove dust and debris. If the mean total PCB concentration of the concrete surface is less than 25 mg/kg the pits/trenches may be backfilled or covered without further remediation; otherwise, the pit/trench will be double-washed-rinsed followed by installation of a cover/lid, or backfilled and covered with a 6-inch concrete surface. Covers that are installed on interior pits and trenches will be labelled in accordance with 40 CFR § 761.30(p).
- Standard: Pits/trenches are considered low-occupancy areas with a cleanup standard not to exceed 25 mg/kg based on statistical comparison of the mean total PCB concentration using ProUCL Version 5.0.00, or more recent.
- Sampling Frequency: Bulk sampling to a depth of no more than one-half inch of the concrete surface will be performed at a frequency of one sample per pit bottom and one sample every 40 linear feet of each trench.

Fixed Equipment (presses)

- Remediation Methods: Fixed equipment that is to remain at RBAAP after Phase 2 work will be cleaned of dust using the double-wash-rinse process, encapsulated, and labelled in accordance with 40 CFR § 761.30(p). Alternatively, paint may be removed by methods similar to the remediation for building surfaces at 8 feet and below.
- Standard: If the equipment is cleaned and encapsulated, it will be visually monitored for indication of wear through or loss of outer coating integrity in accordance with 40 CFR § 761.30(p), and recoated as necessary. If paint was removed from the equipment, no visible paint may remain and a cleanup standard of 10 µg/100 cm^2 based on statistical comparison of the mean total PCB concentration using ProUCL Version 5.0.00, or more recent.
- Sampling Frequency: Not applicable for encapsulated equipment. Wipe sampling will be performed at a frequency of three wipes for each item when paint has been removed.

4.0 Galbestos Panel Removal and Disposal

Proper sequencing of the Galbestos panel removal and building decontamination activities is critical because PCB-laden dust can be easily mobilized and cross-contaminate clean areas inside the building or escape through uncovered sides of the building as siding panels are removed. Details for the interior cleaning and Galbestos panel removal are provided in the Work Sequence and Approach, provided in Appendix B of the Phase 2 SAP. Elements of the panel removal include:

- Install plastic sheeting to partition work areas and control access to and from building interiors during work to minimize potential for cross contamination.

- Frequently vacuum floors using vacuums equipped with HEPA filters to minimize dust during PCB cleanup activities and conduct perimeter air monitoring outside of the active work areas using both real-time dust monitors for particulates and air samples for total PCB analysis.
- Implement work practices for detaching and disposing Galbestos panels that addresses both the PCB and asbestos hazards and minimizes potential for recontamination of cleaned surfaces. Galbestos panels will be lowered to ground personnel in a controlled fashion to avoid damage to the panels, bundled, and wrapped in plastic sheeting. Misting with water or other equivalent means will be employed, as appropriate, to control dust. The Galbestos panels will be removed from RBAAP for disposal in a TSCA-approved landfill within 45 days.
- Removal of Galbestos panels will occur one building at a time. The RLRA intends to install replacement siding after removal.

5.0 Air Monitoring and Decontamination Standards

- Stationary air sampling will be conducted outside work areas including tenant-occupied areas on a weekly basis using high-volume air sampling and analysis by USEPA's Compendium Method TO-4A to confirm that the total airborne PCB level is less than 0.2 µg/m^3. Real-time dust monitoring and low-volume air sampling will be performed within work areas to ensure the health and safety of workers.
- The high volume air sampling and analysis by USEPA's Method TO-4A will also be performed once in each building after cleanup has been completed to ensure the final total airborne PCB level is less than 0.2 µg/m^3. Clearance testing results will be based on total PCBs calculated as the sum of all Aroclors, including Aroclor 1268.
- Collected wash water will be held in steel tanks, tested, and discharged to the local POTW if less than 3 µg/l, or otherwise treated on site in accordance with decontamination standards and procedures in 40 CFR § 761.79 prior to discharge, or removed for commercial off-site treatment/disposal.

6.0 Other Health and Safety Protocols

An Accident Prevention Plan, including a Site Safety and Health Plan, will be prepared to identify potential hazards associated with work activities and develop engineering and administrative measures to mitigate those hazards.

All personnel entering the work/exclusion zone during active remedial work are required to wear at a minimum the following personal protective equipment (PPE).

- Disposable coveralls (e.g., Tyvek) including a hood
- Nitrile surgical gloves
- Booties (or boot wash upon exiting the exclusion zone)

- Air purifying respirators with appropriate cartridges

7.0 Sampling and Analysis

PCB sampling and analysis will be performed in accordance with the project SAP.

8.0 Work Sequencing and Scheduling

A preliminary schedule for the Phase 2 cleanup activities is provided with the Work Sequence and Approach, Appendix B of the enclosed SAP. PCB cleanup activities will be coordinated with tenants, and sequencing of the work may be adjusted to accommodate business activities if practical without impacting the overall remediation schedule.

9.0 Long Term Restrictions and Monitoring

Once remediation has been completed, the RLRA or future property owners will be solely responsible for long-term monitoring (LTM), which includes but is not limited to maintenance, repairs and training. LTM will include annual visual inspections for paint deterioration (above 8 feet), and to maintain PCB markings for surfaces of encapsulated presses and for covers of pits/trenches (if concrete surfaces remain at concentrations greater than 25 mg/kg). The inspections and any repairs performed will be documented. Personnel accessing these areas for paint repair or any other maintenance will be provided training about the hazards of PCB exposure, and will be equipped with the appropriate PPE for the activity being performed.

The RLRA or future owners will also be responsible for proper disposal or remediation of any remaining fixed equipment, personal property, LTM waste, or structural elements with porous surfaces containing concentrations greater than 1 mg/kg total PCBs. If these items are removed because of renovation, building demolition, or LTM activities, they will be disposed of as follows:

- Metal coated with paint containing 50-499 mg/kg total PCBs may be disposed of in a scrap metal recovery oven or smelter operated in accordance with 40 CFR § 761.72, or disposed in a TSCA-permitted landfill;
- Metal coated with paint containing less than 50 mg/kg total PCB may be disposed of in a state-permitted solid waste landfill; or smelted without restriction; and
- Concrete containing PCB less than 50 mg/kg may be disposed of in a state-permitted solid waste landfill.

A commercial/industrial use restriction will be included in the deed for the real property remediated during the Phase 2 work to be enforced by the RLRA or future owners.

We believe this request for approval addresses the remaining PCB remediation of the buildings and contents, including building interiors (i.e., structural steel, floors, pits/trenches, and fixed equipment), Galbestos panels, and specific equipment remaining after the Phase 1 work. The

Army and RLRA are on the cusp of entering into a second ESCA (ESCA-2) to implement the Phase 2 work in which the Army and RLRA comply with the TSCA and USEPA's approval of risk-based cleanup under TSCA. We look forward to your prompt response and approval.

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